

# Injury and Illness Patterns of Migrant and Seasonal Crop Harvesters

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Occupational health can be one of the most prevalent patient care issues for clinicians working with migrant and seasonal farmworkers. Farmworker patients are a unique segment of the US workforce and factors such as lack of training, language barriers, piece-rate pay, illegal worker status, and geographical and cultural isolation can put these workers at increased risk for work-related injuries and illnesses. Many of these factors also make it difficult to assess injury rates and patterns in this population. Work-related injuries and illnesses often go unreported because access to healthcare and workers compensation insurance require a knowledge of these systems, transportation, a permanent address and an ability to read and speak English.

However, some attempts have been made to characterize farmworker occupational health patterns in different regions of the United States and these inquiries have led to a variety of injury rates. Researchers investigating occupational injuries and illnesses in South Carolina (McDermott and Lee, 1990), North Carolina (Ciesielski et al., 1991), Ohio (Isaacs and Bean, 1995) and California (Villarejo, 1998) have found rates anywhere from 5.2 to 11 percent. There are currently no published rates for the Northeast.

In an effort to learn more about migrant and seasonal farmworker occupational injury and illness patterns in the Northeast, the New York Center for Agricultural Medicine and Health, has recently completed a surveillance project involving migrant health center chart audits at 12 federally-funded migrant health centers in seven states in the Northeast (ME, CT, MA, NY, NJ, PA, MD) (see Figure 1). This source of occupational health data seemed most appropriate since health center data would include information on injury event, contributing factors and diagnosis. In addition, it seemed likely that health centers would treat the majority of farmworker occupational injuries since they are based in heavily populated farmworker regions and offer farmworkers reduced health care service fees, interpretation and culturally appropriate health care.

In addition to health centers, Emergency Rooms were recruited in one region of the Northeast to assess the degree to which this healthcare source is utilized and to establish whether the occupational injury patterns at this source of health care differ vastly from

**Figure 1**  
**Participating Federally-Funded Migrant Health Centers and Voucher Programs**



migrant health center injury patterns.

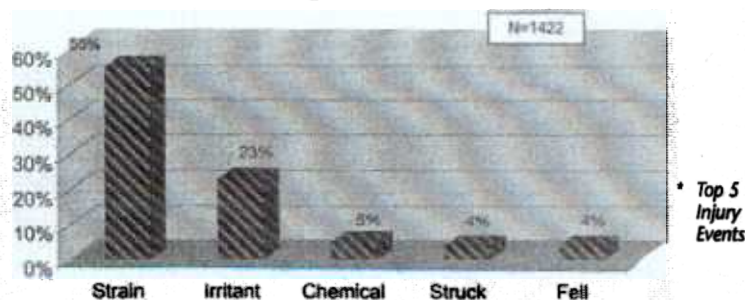
Over the course of two years, 1,690 migrant and seasonal farmworker occupational injuries and illnesses were documented at Migrant Health Centers and Emergency Rooms throughout the Northeast. Migrant and seasonal farmworkers were defined as workers involved in the hand harvesting of crops that are not employed year round. 1,422 of these injuries and illnesses were treated at Migrant Health Centers in each of the seven states previously listed and 268 were treated at Emergency Rooms in one region of New York State and various other hospitals spread throughout the Northeast.

The majority of injuries and illnesses presenting at Migrant Health Centers involved musculoskeletal sprains and strains (55%) (See Figure 2). This is not surprising when

considering the conditions surrounding crop harvesting. Often workers spend long hours in awkward postures with few breaks because of pressure to harvest crops while they are still marketable. Indeed, many of the sprains and strains documented, indicated bending or stooping (27%), lifting (21%) and carrying an object (10%) as the main contributing factors to the injury (See Figure 3).

Exposure to natural irritants was also a frequent injury event amongst farmworkers (23%). Natural irritant refers to substances such as plant materials, sun, water, or dust that can cause skin or eye irritations. Dermatitis and allergic reactions were frequently diagnosed in farmworkers exposed to these irritations and working conditions frequently contributing to these exposures included: inadequate personal protective equipment or clothing (30%), weather condi-

**Figure 2**  
**Farmworker Occupational Injury Events Documented at Migrant Health Centers\***



## ■ Hispanic Immigrants on the Eastern Shore of Maryland continued from page 5

tions (17%), environmental exposures (14%), grasping, picking or pulling (11%) and crops being covered in poison ivy or sumac (9%) (only the top 5 contributing factors).

Chemical exposures were also notable injury events documented in the survey (5% of injury events) and typically involved exposures to pesticides or herbicides. Farmworkers complaining of chemical exposures usually indicated that the crop they were harvesting was covered in pesticides or herbicides (39%), or that they were engaged in mixing or applying chemicals (19%) and that they were wearing inappropriate personal protective equipment (8%) or working in the vicinity where spraying was occurring (7%).

Getting struck by an object (4%) and falls (4%) also accounted for a notable number of occupational injuries and illnesses.

Inadequate personal protective equipment (27%), carrying an object (12%), pruning/trimming (12%) and faulty guards on machinery (7%) were associated with the majority of injury events leading to being struck by an object, while falls were frequently connected with getting on or off machinery (27%), a previous injury (19%), wet (18%) or uneven (18%) surfaces and faulty guards on machinery (9%).

Interestingly enough, many of the farmworkers visiting migrant health centers with these occupationally related medical conditions did not file workers compensation forms. According to data listed in patient charts, 90% of farmworkers chose not to file a claim for their work-related injury, while 3% did chose to start the claim process. In 7% of documented injury/illness cases, it was impossible to tell from the patients chart whether a claim had been filed. It is likely that the difficulty in filling out these forms, as well as the fear of reprisals from employers, influences the relatively low rate of compensation reimbursement.

As mentioned previously, data collection at emergency rooms was undertaken in one of the regions in New York and several cen-

ters scattered throughout the Northeast. The data presented here is from the last year of data collection in the New York region, which had the most comprehensive collection of ER data. We found that approximately 1/3 of occupational injuries and illnesses were treated at emergency rooms in this region (See Figure 4).

In examining this trend, we found that the majority of farmworker visits to emergency rooms involved treatment for work-related injuries that did not require urgent care. 64% of the farmworker occupational injuries documented at emergency rooms were of low severity (See Figure 5). This represents a drain on urgent care resources in this region, and most likely results in a loss of income for these institutions since the federal migrant healthcare program does not reimburse facilities for emergency room visits and most farmworkers do not carry insurance.

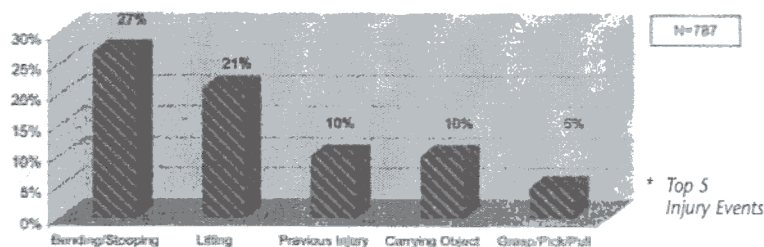
The results of our surveillance study indicate that occupational injuries and illnesses touch the lives of many farmworkers and their families in the Northeast. The resulting medical complications can affect a farmworkers income earning potential and/or quality of life and in learning more about the circumstances surrounding these injuries and illnesses, perhaps it is possible to involve migrant clinicians in prevention activities or at least to assist them in providing care for patients that

accounts for their unique job circumstances. NEC is currently using the data generated from this study to inform the medical community on the occupational health issues that are most salient in this population, as well as to design materials and safety training programs that reduce the incidence of these injuries and illnesses. Interventions that are currently underway at NYCAMH/NEC include ergonomic improvements to harvesting equipment, a physicians reference guide to farmworker occupational health, health and safety materials that are linguistically and culturally appealing to farmworkers, and safety training programs that take place at the workplace. Many of these projects will emphasize farmworker involvement in the development and design phases. For more information on NYCAMH/NEC research or intervention projects, call 1-800-343-7527. ■

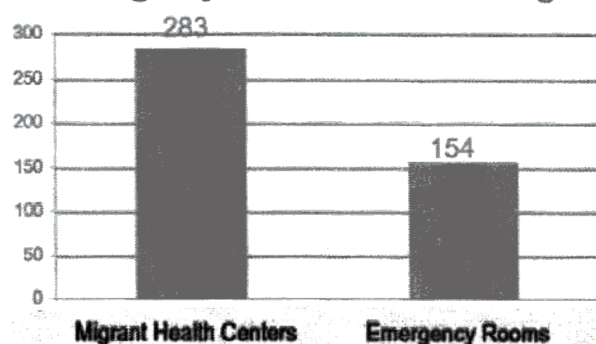
### References

- McDermott, S. and C.V. Lee. 1990. Injury among male migrant farm workers in South Carolina. *J Community Health* 15(5):297-305.
- Ciesielski, S.D., S.P. Hall and M. Sweeney. 1991. Occupational injuries among North Carolina migrant farm workers. *Am J Pub Health* 81(7):926-927.
- Isaacs, L.K. and T.L. Bean. 1995. An overview of the Ohio migrant farmworker safety needs assessment. *J Agric Saf Health* 1(4):261-272.
- Villarejo, D. 1998. Occupational injury rates among hired farm workers. *J Agri Saf Health* 1:39-46.

**Figure 3**  
**Factors Contributing to Musculoskeletal Strain\***



**Figure 4**  
**Farmworker Migrant Health Center Visits vs. Emergency Room Visits in One Region**



**Figure 5**  
**Injury/Illness Severity: MHCs vs. ERs**

